

Bridge Inspection							
Bridge File Number	01894 -1 Bridge			Form Type	PSR		
Year Built/Year Supstr	1962/1962			Lot No.	2		
Bridge or Town Name	BOWDEN			Inspector Name	Owen Salava		
Located Over	LITTLE RED DEER RIVER, 3.89, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	587:02 C1 28.722			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	25-Oct-2011		
Legal Land Location	SE SEC 29 TWP 34 RGE 2 W5M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-114:14:56, 51:56:26			Data Entry Date	23-Nov-2011		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA19			Review Date	11-Nov-2011		
Clear Roadway/Skew	7.9 /			Dept. Reviewer Name	Andrew Smikles		
AADT/Year	1,230 / 2010 (A)			Dept. Review Date	24-Nov-2011		
Road Classification	RCU-209-110			Follow-Up By			
Detour Length (km)	5						
Allowable Load (t):	Single	CS1 44 GIRDER	Semi	CS2 55 GIRDER	Train	CS3 70 GIRDER	---> On Critical Spans --->Critical Member
Design Loading:	HS20						---> Primary Span

Posting Information								
Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	EB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	WB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Remarks	Not required.							

Hazard Marker At Bridge (Y/N)	Yes
Remarks	On timber post @ end of bridge, not to standard.
Other Sign Types	No fishing from bridge.

Utilities (Located at)			
Utility Attachments			
Telephone	Conduit on South bridgerail.	Gas	
Power	2 wire OH 25m North of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Approach @ SW corner. Hill to West, adequate sight distance.
Vertical Alignment		7	7	
Roadway Width (m)	9.500			Type IV radius @ SW. Not attached to bridge parapets. Incorrect post spacing - West end only. SW - 38.0m; NW - 30.4m; SE - 30.4m; NE - 60.8m. NE transition not bolted to parapet - photo.
Approach Bump		5	6	
Guardrail (Y/N)	Yes			
Guardrail		6	5	
Length (m)	30.400			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN ENDS			
Drainage		7	7	
<b>Approach Road General Rating</b>		<b>6</b>	<b>6</b>	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : PO, 3 Spans, Lengths(m): 18.3-24.4-18.3, A-Ident Number: )						
<b>Special Features</b>						
Special Feature			X			
(Type : )						
Special Feature			X			
(Type : )						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
<b>Last</b>	10	0	0	0		
<b>Now</b>	0.0	0.0	0.0	0.0		
Wearing Surface			6	6	Some longitudinal & transverse cracks. Narrow	
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )						
(Thickness(mm) : <b>50</b> )						
Lateral Connection Problem (Y/N)	Yes					
Deck Top			N	N		
Deck Rideability			7	7		
Deck Joints			8	8	Exp. Exp. Exp. Exp.	
Temperature (deg. C)		-1				
(Expansion Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )						
(Fixed Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )						
Gap Size (mm)		Gap Location				
81		E. abut.				
86		E. pier				
85		W. pier				
82		W. abut.				
Deck Drainage			6	6		
Drains Clogged (Y/N)		No				
Curbs/Median			N	4	Heavy scaling mostly on N curb-W span - photo. Some cracked sections along S curb. One patch around post from previous accident damage. Large spall S side of W span. Degraded curb fascia may be affecting post anchorage at S curb above P1.	
(Curb Type : <b>Standard</b> )		Scaling (Percent Area)		15		
Bridge Rail			7	7	1/3 of anchor bolts are flush or up to 2 threads below anchor bolt nut.	
(Type : <b>VERTICAL BAR</b> )						
Bridge Rail Posts			5	5		
(Type : <b>GALVANIZED POST STEEL; GALVANIZED POST STEEL</b> )						
Bridge Rail/Posts Coating			7	7		
(Type : )						
Sidewalk			X	X		
<b>Girder Detail Ratings</b>						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>	0	0	0	0		
<b>Now</b>	0	0	0	0		

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : PO, 3 Spans, Lengths(m): 18.3-24.4-18.3, A-Ident Number: )				
Girders		5	5	
Cracking (Y/N)	No			
Spalling (Percent Area)	0			
(Number Of Girders : 13)				
Diaphragms/Cross Frame		7	7	Steel rusted near joints.
Bearings		5	5	No nut on bearing A/B in W abut - photo. S2G5 bearing at E pier appears to be missing nut on A/B.
Temperature (deg. C)	-1			
(Expansion Type : REINFORCED PAD BEARING)				
(Fixed Type : NEOPRENE STRIP BEARING)				
Coating Adequate (Y/N)	No			Rusty from past leaking joint - photo.
Functioning (Y/N)	Yes			
Deck Underside		5	5	
Stains (Percent Area)	2			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>5</b>	<b>5</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		5	5	Gully down hslp starts below A1 seat.
<b>Piers/Bents</b>				
(Type : PIER-SOLID)				
Bearing Seats/Caps		7	7	Both piers have medium-wide vertical cracks near one-third points.
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		6	6	Minor rust along edges.
(Colour Description : )				
(Colour Code : )				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	Yes			Large debris at P1 bank side & nose.

Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Substructure General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>S</b> )				
(D/S Direction : <b>N</b> )				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible. Deadfall in channel.
Drift (Y/N)	Yes			
Slope Protection		6	6	
(Type : <b>CONCRETE; CONCRETE</b> )				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>6</b>	<b>6</b>	

Maintenance Recommendations									
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #			
REPAIR/REPLACE BRIDGE RAIL									
GALVANIZE/PAINT BRIDGE RAIL									
SEAL CURBS	2012	Patch scaled / spalled curb & seal, patch / seal NW & SE parapet.							
PATCH DECK									
SEAL DECK									
OVERLAY DECK									
REPAIR/REPLACE DECK JOINTS									
RESET/ PAINT BEARINGS	2012	Paint bearings.							
WASHING									
SHOTCRETE REPAIRS									
REPAIR ABUTMENT SCOUR/EROSION									
PLACE ADDITIONAL RIP RAP									
REMOVE DRIFT ACCUMULATION									
OTHER ACTION	2012	Determine if West abutment bearing A/Bs require nut - install as necessary.							
OTHER ACTION	2012	Replace nut on S2G5 East pier A/B.							
OTHER ACTION	2012	Upgrade West approach rail to meet standard. Attach to parapet at NE.							
OTHER ACTION									
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>64.6/64.0</b>	<b>Est. Repl. Yr</b>	<b>2025</b>	<b>Maint. Req. (Y/N)</b>	<b>Yes</b>		
Special Comments for Next Inspection	Department Comments								
Maintenance Reviewed By	Date		Estimated Total 0						
Proposed Long-Term Strategy	2004.12.24 Bridge should be good until next intervention in 2020. Estimated replacement year 2040.								
On 3-Year Program (Y/N)									
Proposed Action									
Previous Inspector's Name	Owen Salava	Previous Assistant's Name							
Next Inspection Date	25-Jan-2015	Previous Inspection Date	06-Dec-2010						
Inspection Cycle (Default) (months)	39								
Comment									

**Maintenance Recommendations**

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS	2012	Patch scaled / spalled curb & seal, patch / seal NW & SE parapet.	Programmed	2012			
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS	2012	Paint bearings.	Programmed	2012			
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Determine if West abutment bearing A/Bs require nut - install as necessary.	Programmed	2012			
OTHER ACTION	2012	Replace nut on S2G5 East pier A/B.	Programmed	2012			
OTHER ACTION	2012	Upgrade West approach rail to meet standard. Attach to parapet at NE.	Operations				
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>64.6/64.0</b>	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments	Deck rehab scheduled in PMA for 2021. DA			
Maintenance Reviewed By	Darron Ahlstedt		Date	30-Oct-2012	Estimated Total	0	
Proposed Long-Term Strategy	2004.12.24 Bridge should be good until next intervention in 2020. Estimated replacement year 2040.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Owen Salava		Previous Assistant's Name				
Next Inspection Date	25-Jan-2015		Previous Inspection Date	06-Dec-2010			

Inspection Cycle (Default) (months)	39
Comment	